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APPL NO	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/731,875	12/09/2003	2121	0.00	9692-000029	33	30	3

CONFIRMATION NO. 9480

27572

HARNESS, DICKEY & PIERCE, P.L.C.
 P.O. BOX 828
 BLOOMFIELD HILLS, MI 48303

FILING RECEIPT



OC000000012143267

Date Mailed: 03/19/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Paul D. Thomas, San Francisco, CA;
 Anish Kejariwal, San Francisco, CA;
 Michael J. Campbell, San Francisco, CA;
 Huaiyu Mi, Palo Alto, CA;
 Karen Diemer, Albany, CA;
 Nan Guo, San Lorenzo, CA;
 Istvan Ladunga, Foster City, CA;
 Betty Lazareva, Sunnyvale, CA;
 Anushya Muruganujan, Campbell, CA;
 Steven Rabkin, San Francisco, CA;
 Jody Vandergriff, San Francisco, CA;
 Olivier Doremieux, San Francisco, CA;

RECEIVED

APR 26 2004

Technology Center 2100

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/431,879 12/09/2002

Foreign Applications

If Required, Foreign Filing License Granted: 03/18/2004

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

Title

Browsable database for biological use

Preliminary Class

700

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/731,875	12/09/2003	Paul D. Thomas	9692-000029

27572

HARNESS, DICKEY & PIERCE, P.L.C.
 P.O. BOX 828
 BLOOMFIELD HILLS, MI 48303

CONFIRMATION NO. 9480

FORMALITIES LETTER



OC000000012143268

Date Mailed: 03/19/2004

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
Applicant must submit \$ 770 to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).
- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of **\$180** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$1080** for a Large Entity

- **\$770** Statutory basic filing fee.
- **\$130** Late oath or declaration Surcharge.
- Total additional claim fee(s) for this application is **\$180**
 - **\$180** for **10** total claims over 20.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

*A copy of this notice **MUST** be returned with the reply.*


Customer Service Center
Initial Patent Examination Division (703) 308-1202

PART I - ATTORNEY/APPLICANT COPY



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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/731,875	12/09/2003	Paul D. Thomas	9692-000029

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HARNESS, DICKEY & PIERCE, P.L.C.
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CONFIRMATION NO. 9480

FORMALITIES LETTER



OC000000012143268

Date Mailed: 03/19/2004

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 - **\$180** for **10** total claims over 20.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

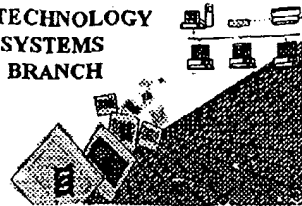
*A copy of this notice **MUST** be returned with the reply.*

N. Mohammed

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/731,875
Source: OIPC
Date Processed by STIC: 12-30-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 10/731,875
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 ___ Wrapped Nucleics ___ Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 ___ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 ___ Misaligned Amino ___ Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 ___ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 ___ Variable Length	Sequence(s) ___ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 ___ PatentIn 2.0 ___ "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 ___ Skipped Sequences ___ (OLD RULES)	Sequence(s) ___ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 ___ Skipped Sequences ___ (NEW RULES)	Sequence(s) ___ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 ___ Use of n's or Xaa's ___ (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input checked="" type="checkbox"/> Invalid <213> ___ Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 ___ Use of <220>	Sequence(s) ___ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 09/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 ___ PatentIn 2.0 ___ "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 ___ Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/731,875

DATE: 12/30/2003

TIME: 15:35:37

Input Set : A:\Thomas, et al. (9692-000029) Seq. Listing.ST25.txt

Output Set: N:\CRF4\12302003\J731875.raw

3 <110> APPLICANT: Applera Corporation
 4 Thomas, Paul
 5 Kejariwal, Anish
 6 Campbell, Michael
 7 Mi, Huaiyu
 8 Diemer, Karen
 9 Guo, Nan
 10 Ladunga, Istvan
 11 Lazareva, Betty
 12 Muruganujan, Anushya
 13 Rabkin, Steven
 14 Vandergriff, Jody
 15 Doremieux, Olivier
 17 <120> TITLE OF INVENTION: Browsable Database For Biological Use
 19 <130> FILE REFERENCE: 9692-000029
 C--> 21 <140> CURRENT APPLICATION NUMBER: US/10/731,875
 C--> 21 <141> CURRENT FILING DATE: 2003-12-09
 21 <160> NUMBER OF SEQ ID NOS: 63
 23 <170> SOFTWARE: PatentIn version 3.2
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 62
 27 <212> TYPE: PRT
 28 <213> ORGANISM: Exemplary Protein Sequence
 30 <400> SEQUENCE: 1
 32 Leu Ala Val Glu Val Leu Phe Ile Leu Asp Ile Val Leu Asn Phe Arg
 33 1 5 10 15
 36 Thr Thr Phe Val Ser Lys Gly Gln Val Val Phe Ala Pro Lys Ile Cys
 37 20 25 30
 40 Leu His Tyr Val Thr Thr Trp Phe Leu Leu Asp Val Ile Ala Ala Leu
 41 35 40 45
 44 Pro Phe Asp Leu Leu His Ala Lys Val Asn Tyr Phe Gly Ala
 45 50 55 60

Does Not Comply
 Corrected Diskette Needed

P.6

See item 10 on error summary sheet.

48 <210> SEQ ID NO: 2
 49 <211> LENGTH: 62
 50 <212> TYPE: PRT
 51 <213> ORGANISM: Exemplary Protein Sequence
 53 <400> SEQUENCE: 2
 55 Leu Ala Val Glu Val Leu Phe Ile Leu Asp Ile Val Leu Asn Phe Arg
 56 1 5 10 15
 59 Thr Thr Phe Val Ser Lys Gly Gln Val Val Phe Ala Pro Lys Ile Cys
 60 20 25 30
 63 Leu His Tyr Val Thr Thr Trp Phe Leu Leu Asp Val Ile Ala Ala Leu
 64 35 40 45

RAW SEQUENCE LISTING

DATE: 12/30/2003

PATENT APPLICATION: US/10/731,875

TIME: 15:35:37

Input Set : A:\Thomas, et al. (9692-000029) Seq. Listing.ST25.txt
 Output Set: N:\CRF4\12302003\J731875.raw

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72 <211> LENGTH: 62
73 <212> TYPE: PRT
74 <213> ORGANISM: Exemplary Protein Sequence
76 <400> SEQUENCE: 3
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79 1      5                      10                      15
82 Thr Thr Phe Val Ser Lys Gly Gln Val Val Phe Ala Pro Lys Ile Cys
83      20                      25                      30
86 Leu His Tyr Val Thr Thr Trp Phe Leu Leu Asp Val Ile Ala Ala Leu
87      35                      40                      45
90 Pro Phe Asp Leu Leu His Ala Lys Val Asn Tyr Val Gly Ala
91      50                      55                      60
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95 <211> LENGTH: 62
96 <212> TYPE: PRT
97 <213> ORGANISM: Exemplary Protein Sequence
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102 1      5                      10                      15
105 Thr Thr Tyr Val Ser Lys Gly Gln Val Ile Phe Glu Ala Arg Ile Cys
106      20                      25                      30
109 Ile His Tyr Val Thr Thr Trp Phe Ile Ile Asp Leu Ile Ala Ala Leu
110      35                      40                      45
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114      50                      55                      60
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120 <213> ORGANISM: Exemplary Protein Sequence
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129      20                      25                      30
132 Thr His Tyr Val Thr Thr Trp Phe Ile Ile Asp Leu Ile Ala Ala Leu
133      35                      40                      45
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143 <213> ORGANISM: Exemplary Protein Sequence
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148 1      5                      10                      15
151 Thr Thr Tyr Val Ser Gln Gly Gln Val Val Ser Ala Pro Arg Ile Gly

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Same error

RAW SEQUENCE LISTING

DATE: 12/30/2003

PATENT APPLICATION: US/10/731,875

TIME: 15:35:37

Input Set : A:\Thomas, et al. (9692-000029) Seq. Listing.ST25.txt

Output Set: N:\CRF4\12302003\J731875.raw

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152          20          25          30
155 Leu His Tyr Leu Ala Thr Trp Phe Phe Val Asp Leu Ile Ala Ala Leu
156          35          40          45
159 Pro Phe Asp Leu Leu Tyr Val Asn Ile Thr Thr Ser Leu Val
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165 <212> TYPE: PRT
166 <213> ORGANISM: Exemplary Protein Sequence
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174 Thr Thr Tyr Val Ser Gln Gly Gln Val Val Ser Ala Pro Arg Ile Gly
175          20          25          30
178 Leu His Tyr Leu Ala Thr Trp Phe Phe Val Asp Leu Ile Ala Ala Leu
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189 <213> ORGANISM: Exemplary Protein Sequence
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198          20          25          30
201 Leu His Tyr Leu Ala Thr Trp Phe Phe Ile Asp Leu Ile Ala Ala Leu
202          35          40          45
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214 <400> SEQUENCE: 9
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221          20          25          30
224 Leu His Tyr Leu Ala Thr Trp Phe Phe Ile Asp Leu Ile Ala Ala Leu
225          35          40          45
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233 <211> LENGTH: 67
234 <212> TYPE: PRT
235 <213> ORGANISM: Exemplary Protein Sequence
237 <400> SEQUENCE: 10

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same error,
see item 10 on error
summary report.

RAW SEQUENCE LISTING

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PATENT APPLICATION: US/10/731,875

TIME: 15:35:37

Input Set : A:\Thomas, et al. (9692-000029) Seq. Listing.ST25.txt

Output Set: N:\CRF4\12302003\J731875.raw

239 Ser Ile Val Asp Val Ile Phe Phe Ile Asp Ile Val Leu Asn Phe His
 240 1 5 10 15
 243 Thr Thr Phe Val Gly Pro Gly Gly Glu Val Val Ser Asp Pro Lys Val
 244 20 25 30
 247 Ile Met Asn Tyr Leu Lys Ser Trp Phe Ile Ile Asp Leu Leu Ser Cys
 248 35 40 45
 251 Leu Pro Asp Val Phe Asn Ala Phe Asp Arg Asp Glu Asp Gly Ile Gly
 252 50 55 60
 255 Ser Leu Phe
 256 65

259 <210> SEQ ID NO: 11

260 <211> LENGTH: 67

261 <212> TYPE: PRT

262 <213> ORGANISM: Exemplary Protein Sequence

264 <400> SEQUENCE: 11

266 Ser Ile Val Asp Val Ile Phe Phe Ile Asp Ile Val Leu Asn Phe His
 267 1 5 10 15
 270 Thr Thr Phe Val Gly Pro Gly Gly Glu Val Val Ser Asp Pro Lys Val
 271 20 25 30
 274 Ile Met Asn Tyr Leu Lys Ser Trp Phe Ile Ile Asp Leu Leu Ser Cys
 275 35 40 45
 278 Leu Pro Asp Val Phe Asn Ala Phe Asp Arg Asp Glu Asp Gly Ile Gly
 279 50 55 60
 282 Ser Leu Phe
 283 65

286 <210> SEQ ID NO: 12

287 <211> LENGTH: 67

288 <212> TYPE: PRT

289 <213> ORGANISM: Exemplary Protein Sequence

Same error

291 <400> SEQUENCE: 12

293 Ser Ile Val Asp Val Ile Phe Phe Ala Asp Ile Leu Leu Asn Phe His
 294 1 5 10 15
 297 Thr Thr Phe Val Gly Pro Gly Gly Glu Val Val Ile Glu Pro Ser Val
 298 20 25 30
 301 Ile Gln Asn Tyr Phe Lys Ser Trp Phe Leu Ile Asp Leu Leu Ser Cys
 302 35 40 45
 305 Leu Pro Asp Ile Phe Tyr Met Phe Lys Arg Asp Asp Glu Arg Ile Gly
 306 50 55 60
 309 Ser Leu Phe
 310 65

313 <210> SEQ ID NO: 13

314 <211> LENGTH: 67

315 <212> TYPE: PRT

316 <213> ORGANISM: Exemplary Protein Sequence

318 <400> SEQUENCE: 13

320 Ser Ile Val Asp Val Ile Phe Phe Ala Asp Ile Leu Leu Asn Phe His
 321 1 5 10 15
 324 Thr Thr Phe Val Gly Pro Gly Gly Glu Val Val Ile Glu Pro Ser Val
 325 20 25 30

RAW SEQUENCE LISTING

DATE: 12/30/2003

PATENT APPLICATION: US/10/731,875

TIME: 15:35:37

Input Set : A:\Thomas, et al. (9692-000029) Seq. Listing.ST25.txt

Output Set: N:\CRF4\12302003\J731875.raw

```

328 Ile Gln Asn Tyr Phe Lys Ser Trp Phe Leu Ile Asp Leu Leu Ser Cys
329           35           40           45
332 Leu Pro Asp Ile Phe Tyr Met Phe Lys Arg Asp Asp Glu Arg Ile Gly
333           50           55           60
336 Ser Leu Phe
337 65
340 <210> SEQ ID NO: 14
341 <211> LENGTH: 67
342 <212> TYPE: PRT
343 <213> ORGANISM: Exemplary Protein Sequence
345 <400> SEQUENCE: 14
347 Ser Val Val Asp Val Ile Phe Leu Val Asp Ile Val Leu Asn Phe His
348 1           5           10           15
351 Thr Thr Phe Val Gly Pro Gly Gly Glu Val Ile Ser Asp Pro Lys Leu
352           20           25           30
355 Ile Met Asn Tyr Leu Lys Thr Trp Phe Val Ile Asp Leu Leu Ser Cys
356           35           40           45
359 Leu Pro Asp Ile Ile Asn Ala Phe Glu Asn Val Asp Glu Gly Ile Ser
360           50           55           60
363 Ser Leu Phe
364 65
367 <210> SEQ ID NO: 15
368 <211> LENGTH: 67
369 <212> TYPE: PRT
370 <213> ORGANISM: Exemplary Protein Sequence
372 <400> SEQUENCE: 15
374 Ser Val Val Asp Val Ile Phe Leu Val Asp Ile Val Leu Asn Phe His
375 1           5           10           15
378 Thr Thr Phe Val Gly Pro Gly Gly Glu Val Ile Ser Asp Pro Lys Leu
379           20           25           30
382 Ile Met Asn Tyr Leu Lys Thr Trp Phe Val Ile Asp Leu Leu Ser Cys
383           35           40           45
386 Leu Pro Asp Ile Ile Asn Ala Phe Glu Asn Val Asp Glu Gly Ile Ser
387           50           55           60
390 Ser Leu Phe
391 65
394 <210> SEQ ID NO: 16
395 <211> LENGTH: 80
396 <212> TYPE: PRT
397 <213> ORGANISM: Exemplary Protein Sequence
399 <400> SEQUENCE: 16
401 Ser Ile Val Asp Val Ile Phe Leu Val Asp Ile Val Leu Asn Phe His
402 1           5           10           15
405 Thr Thr Phe Val Gly Pro Ala Gly Glu Val Ile Ser Asp Pro Lys Leu
406           20           25           30
409 Ile Met Asn Tyr Leu Lys Thr Trp Phe Val Ile Asp Leu Leu Ser Cys
410           35           40           45
413 Leu Pro Asp Val Ile Asn Ala Phe Glu Asn Val Asp Glu Val Ser Ala
414           50           55           60

```

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/731,875

DATE: 12/30/2003
TIME: 15:35:38

Input Set : A:\Thomas, et al. (9692-000029) Seq. Listing.ST25.txt
Output Set: N:\CRF4\12302003\J731875.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:50; Xaa Pos. 8

Seq#:60; Xaa Pos. 5

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/731,875

DATE: 12/30/2003

TIME: 15:35:38

Input Set : A:\Thomas, et al. (9692-000029) Seq. Listing.ST25.txt

Output Set: N:\CRF4\12302003\J731875.raw

L:21 M:270 C: Current Application Number differs, Replaced Current Application No

L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1481 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0

L:1597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0